

REMARKS

Claims 1-26 are pending in this application. At the outset, Applicants thank the Examiner for the courtesy extended in the June 9 interview where the difference between thermal stability and radiation stability as related to U.S. Patent No. 6,046,273 of Syed and U.S. Patent No. 6,017,986 of Burton was discussed.

Applicants also would like to thank the Examiner for indicating in the office action that claims 9, 21, 25 and 26 would be allowable if rewritten in independent form.

Claim Rejections

Response to Rejection of Claims 1, 3-8, 10-13, 15-20 and 22-24 under 35 U.S.C. § 103(a) as being unpatentable over Syed in view of Burton.

In response to the rejection of claims, 1, 3-8, 10-13, 15-20 and 22-24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,046,273 of Syed ("Syed") in view of U.S. Patent No. 6,017,986 of Burton ("Burton"), Applicants respectfully submit that there is no motivation to combine the reference and therefore, a *prima facie* case of obviousness has not been made out by the Examiner and respectfully traverse the rejection.

Syed discloses a process to increase the thermal stability of a polymer by copolymerizing with a second monomer. That is, a process for improving the thermal stability of alpha-substituted acrylate graft copolymers by copolymerizing 1-3 C alkyl-substituted acrylic acid with an ester of a 1-3 C alkyl-substituted acrylic acid. (column 2, lines 35-41). Syed indicates that since "poly(methyl methacrylate) tends to lose weight by depolymerization", various levels of methacrylic acid makes the copolymer more stable at a given temperature than the graft copolymer made with 100% MMA or MMA/MeAc. (column 7, line 65 to column 8, line 18.) Since the technical issue addressed in Syed has been solved by copolymerization there is no motivation for a person skilled in the art to use an unsaturated oil as disclosed in Burton to increase the thermal stability of the polymer. Although Syed does disclose that other additives, such as oil can also be present in the acrylate-grafted copolymers (column 6, line 41), there is neither suggestion that the use of oil can increase the thermal stability of the polymer nor indication that unsaturated oils should be used.

As the Examiner indicated in the office action, Burton taught the use of unsaturated oils

for polyolefins in order to improve their radiation resistance. However, Burton discloses a radiation-resistant polyolefin composition to reduce the radiation induced brittleness due to oxidation. The present invention deals with the thermal stability of non-polyolefin polymers which does not relate to an oxidation process. Instead, it relates to a thermal dynamic process due to the ceiling temperature of the polymers, which is a tendency to depolymerize from a polymer to a monomer to increase the entropy of the system. Applicants therefore respectfully submit that no *prima facie* case has been made out.

Reconsideration and withdrawal of the rejection respectfully is requested.

Applicants submit that the application stands in condition for allowance. Should the Examiner have questions or comments regarding this application or this amendment, Applicant's agent would welcome the opportunity to discuss the case with the Examiner.

The Commissioner is hereby authorized to charge U.S. PTO Deposit Account 08-2336 in the amount of all fees required for consideration of this Amendment.

This is intended to be a complete response to the Office Action mailed April 6, 2004.

Respectfully submitted,

ABUZAR SYED ET AL.

June 17, 2004
(Date)

By:

Cheng Song
Cheng Song, Ph. D.
Registration No. 52,236
Agent for Applicants

Enclosures
Basell USA Inc.
912 Appleton Road
Elkton, MD 21921
Agent's Telephone No.: 410-996-1750
Agent's Fax No.: 410-996-1560

I hereby certify that this correspondence is being deposited with sufficient postage thereon with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 18, 2004.

John A. Butler
6/18/04
Date of Signature